

Guidelines for implementing electronic invoicing in small and medium-sized enterprises

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<p>The purpose of this research is to gain insights into and knowledge of the implementation of electronic invoicing in small and medium-sized enterprises. The aim is to find out what the challenges in implementing are, how to overcome the challenges and how to get started. For the author, the purpose of this research is to gain practical experience of how to conduct research and to compile theoretical knowledge about e-invoicing adoption in SMEs. The goal is also to gain a profound understanding of the impact this implementation can bring to a company.</p> <p>The objective of this research is to help SMEs with the implementation of e-invoicing system, show them the different models of e-invoicing, illustrate the impacts it can bring to the company and present the pros and cons. By doing that, companies will be able to decide themselves whether it is a good choice to start implementing e-invoicing.</p> <p>This study provides user guidelines for implementing e-invoicing in Finland. This research aims to help companies in Finland overcome the barriers when implementing e-invoicing.</p> <p>The theoretical framework of this project was mainly created through desktop research. An empirical chapter is based on qualitative research with primary data from interviews and questionnaires with e-invoice providers.</p> <p>The result of this research are guidelines that show what companies need to do before contacting an e-invoice service provider in order to build a better business case. The research shows how to select the right network provider and how to get the supply chain on board the business case.</p>	
Keywords Invoice, e-invoicing, SMEs, e-invoicing implementation, e-invoicing system, guidelines	

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1 Introduction

Finland was the pioneer country to adopt automated invoice system in European Union. Over 8% of the population in Finland have made use of electronic invoicing in some way. The country has been classified three times as one of the most economically advanced by World Economic Forum (WEF) in the beginning of the twenty first century. The reason this happened is because Finnish society uses data network for nearly any daily activity. (Rofhök-Björn 2006.)

The implementation of electronic invoicing systems in the SMEs in Europe is still at low level. This is due to lack of financial and credit resources as well as limited time, SMEs have found it more challenging to implement e-invoicing compared to big companies that have more resources to invest in modernization and technologies. (Electronic invoicing for small and medium enterprises 2013.)

Several researches have been done about electronic invoice adoption, although not many of them have addressed the challenges faced during this process. How to gain competitive advantage against the other players in the market? Considering these facts, objective of this research is to discover what difficulties are faced when implementing electronic invoice in SMEs, how to overcome challenges and how to get started.

Result of these guidelines will help SMEs to take the decision about implementing electronic invoicing.

1.1 Glossary

A/P: Accounts Payable. “Accounting entry that represents an entity's obligation to pay off a short-term debt to its creditors.” (Investopedia 2016.)

A/R: Accounts Receivable. “Money owed by customers (individuals or corporations) to another entity in exchange for goods or services that have been delivered or used, but not yet paid for.” (Investopedia 2016.)

B2B: Business-to-business.

B2C: Business-to-consumer.

CRM: Customer Resource Management. Basic principles and guidelines companies have when interaction with costumers.

E-invoice: Electronic presentation of statements, bills, invoices, and related information sent by a supplier to buyers and the corresponding electronic payment for goods or services. (E-conomic Accounting Glossary 2014.)

EDI: Electronic Data Interchange refers to the structured transmission of data between organisations by electronic means.

ERP: Enterprise Resource Planning systems contain many of the tools and software to create, account and manage invoices as part of wider corporate processes.

SME: Small and medium-sized enterprises.

VAT: Value Added Tax, a consumption tax that is levied at each stage of production based on the value added to a product or service at that stage.

RFP: Request for Proposal. “Type of bidding solicitation in which a company or organization announces that funding is available for a particular project or program, and companies can place bids for the project's completion.” (Investopedia 2016.)

DSO: Days Sales Outstanding is an average number of days that takes to get the money back from sales. (Investopedia 2016.)

1.2 Background

The idea of making guidelines of implementing e-invoice started when I got my first work placement in Finland. I was working in the invoice department which books all the invoices related to the stores of the company. I managed all the daily invoices; opened incoming envelopes, stamped and matched the invoice with the delivered one. Finally, I scanned it, so that it could be archived.

The company have more than 1500 suppliers and every day they receive about 400 paper invoices. After realizing this, I discussed with management and asked why company does not implement an e-invoice system to save time? They told me company have system in place in other countries, though not in Finland. Like this company, there are many others with same size and similar amount of suppliers in Finland that may be struggling with the decision of implementing e-invoice system.

1.3 Objectives

The project objective is to develop guidelines for small and medium-sized enterprises regarding the implementation of an e-invoice system that can be beneficial; saving time and money by simplifying processes. These guidelines aim to improve companies' awareness of possibilities and report up to what stage the company should invest and if it is beneficial for them.

Guidelines' objectives are divided into the following tasks, see from the table below.

Table 1. Guidelines' tasks

Guidelines objectives	Making a guidelines of implementing e-invoice for SMEs
Task 1	Investigate how big the target group (SMEs in Finland) is
Task 2	Find out what are the legal compliances in Finland related to e-invoicing
Task 3	Estimate the costs of implementing an e-invoicing system
Task 4	Show the benefits of implementing e-invoicing
Task 5	Present the main e-invoicing providers in Finland
Task 6	Explain how companies can get started with e-invoicing

1.4 Demarcation of research

E-invoicing is not a new trend in Finland. It has been around for almost 30 years. It used to be a very expensive investment only large companies could afford, letting the SMEs out of this cycle. Today, this is easier and more affordable investment, and this research aims to help SMEs to join the big companies in this stage.

The project deals with a broad subject; e-invoice, and objective is to narrow the subject to get the best results for the guidelines. Below is Venn diagram to explain the research.

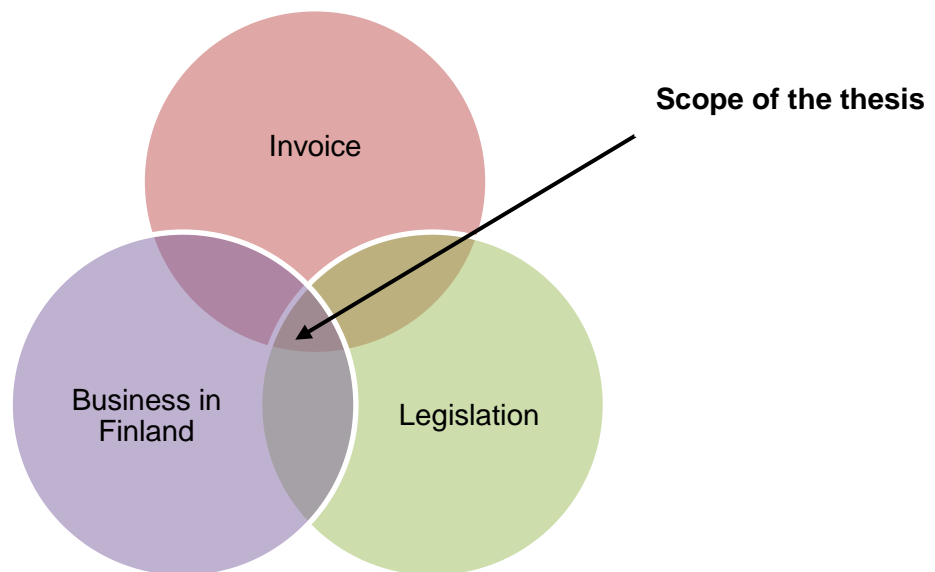


Figure 1. Scope of thesis

There are several types of invoices and this research focus on e-invoice and its implementation in SMEs. The goal is to discover what are the legal requirements and bureaucracies to implement e-invoicing in SMEs. Finally, there will be a presentation of the benefits and guidelines how to implement by interviewing e-invoice suppliers.

To demarcate exactly the target group, below is definition of SMEs in Finland and their contribution to the society and economy.

SMEs are defined as companies with less than 250 paid employees and whose annual turnover is either not more than EUR 50 million or balance sheet total is not more than EUR 43 million. When small enterprises must be differentiated from medium-sized enterprises, a small enterprise is defined as an enterprise with less than 50 paid employees and whose annual turnover is either not more than EUR 10 million or balance sheet total is not more than EUR 10 million. (Statistics Finland 2016.)

According to the Federation of Finnish Enterprises, Finland had in 2013, excluding agriculture, 283 290 enterprises of which 98.9% are SMEs that have less than 50 employees and 93.4% of Finnish companies have less than 10 employees. (Yrittäjät 2015.)

SMEs are responsible for more than 16% of Finland's export revenue, playing a big role in the Finnish economy and employment. From all workers in Finland private sector, about 65% work for companies that employ less than 250 employees. (Yrittäjät 2015.)

Company category	Employees	Turnover or	Balance sheet total
Medium	< 250	≤ € 50 m	≤ € 43 m
Small	< 50	≤ € 10 m	≤ € 10 m

Figure 2. Definition of small and medium-sized business (Yrittäjät 2015.)

1.5 International aspect

Research is focusing on e-invoicing in Finland. Author shows international aspects related to benefits, when trading with international suppliers and EU regulation regarding this matter.

1.6 Anticipated benefits

Outcome of research will be beneficial guidelines for SMEs that will help them taking the decision of implementing the e-invoice system.

SMEs are always giving lot of consideration to the investment of implementing a new system, concerned it will cost too much and they may not have the resources to do it. This research aims to help clarifying the benefits of implementing e-invoicing and the costs of investment.

2 Theoretical framework

The theoretical framework shows how to tailor the huge amount of information available; to present to the final reader only what is most relevant to these guidelines. The pyramid diagrams below show, the broadest topic is what are being studied least and the smaller, and most relevant topic is being studied more.

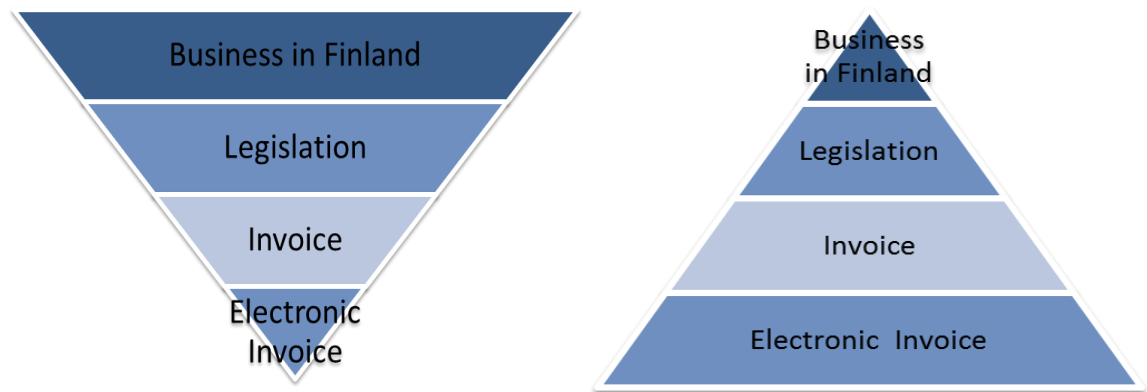


Figure 3. Theoretical framework

2.1 Electronic invoice

Electronic invoice, also known as e-invoicing, electronic billing and e-billing, is structured invoice content (company name, invoice number, reference number, order number, VAT, payment terms etc.) transmitted electronically from supplier to buyer. (Koch-Billentis 2015.)

The objective of e-invoice is to preserve the invoice in computer language during the invoice process. This permits sender and recipient to save money and time. E-invoices are form of invoice sent through internet and set via software, a virtual banking service or web portal. From there, the e-invoices are shifted, by an intercessor, to the receiver for authorization. (Enterprise Finland 2015.)

By e-invoicing, companies allow users easier and faster access to invoices and invoice data. These electronic methods diminish the cost of formulating, revising, and paying bills, in addition to reducing the possibilities for human errors, assuring immense growths in efficiency if implemented in widespread basis. (Koch-Billentis 2015.)

The minimum data to be given on an e-invoice is: the invoice date, invoice number or reference, the vendor's and buyer's name and address, the vendor's VAT, the buyer's VAT, in case of intracommunity trade or reverse charge, the transportation date and payment date as well as tax basis information and rates. (Enterprise Finland 2015.)

2.2 Standards

Standard of e-invoice format for B2B and B2C businesses in Finland is called Finvoice. It is created and maintained by Finnish banks. At the same time, the standard is also a service for all businesses for forwarding e-invoices. (Ilola 2016.)

As discussed in an interview with Viljasaari, Jari (Product Manager from OpusCapita), around 70% of the e-invoices volume in Finland are in B2B environment and 30% in B2C, using Finvoice standard.

The forwarding service is created around the standard's message format. Product or service buyer receive the invoice in an electronic format set by the standard, and transfers the info back to fit own systems in place. Invoices will be matched with standardized reference numbers. Invoice reference data is sent via software provided by banks, or via e-invoice suppliers providing forwarding service.

2.3 Segmentation

According to Jari Viljasaari from OpusCapita, paper invoices in big B2B companies in practice has decreased a lot during the past 20 years, small and medium-sized B2B companies doing business with similar B2B companies might be the only segment left where relevant paper volume exists. B2C is slower. Like any consumer segment, it is driven by feeling and somewhat irrational behavior. Add to this lack of real receiving channels with real consumer value and you will see why so many have wished to use paper. After all, other documents have been paper too. Obviously, this has changed rapidly in the past 5 or so years. Netbanks, Netposti, service portals and digitalization has finally started to work.

2.4 How does it work

The figure below shows different invoice processes, all the steps from sending and receiving the invoice. In the same figure there are three kinds of invoice processes: manual, semi-automated and fully automated. From there we can see how much time and money is used, and how much environmental waste is generated by each process.

When receiving invoice, the time and cost difference between manual process and fully automated process is significant.

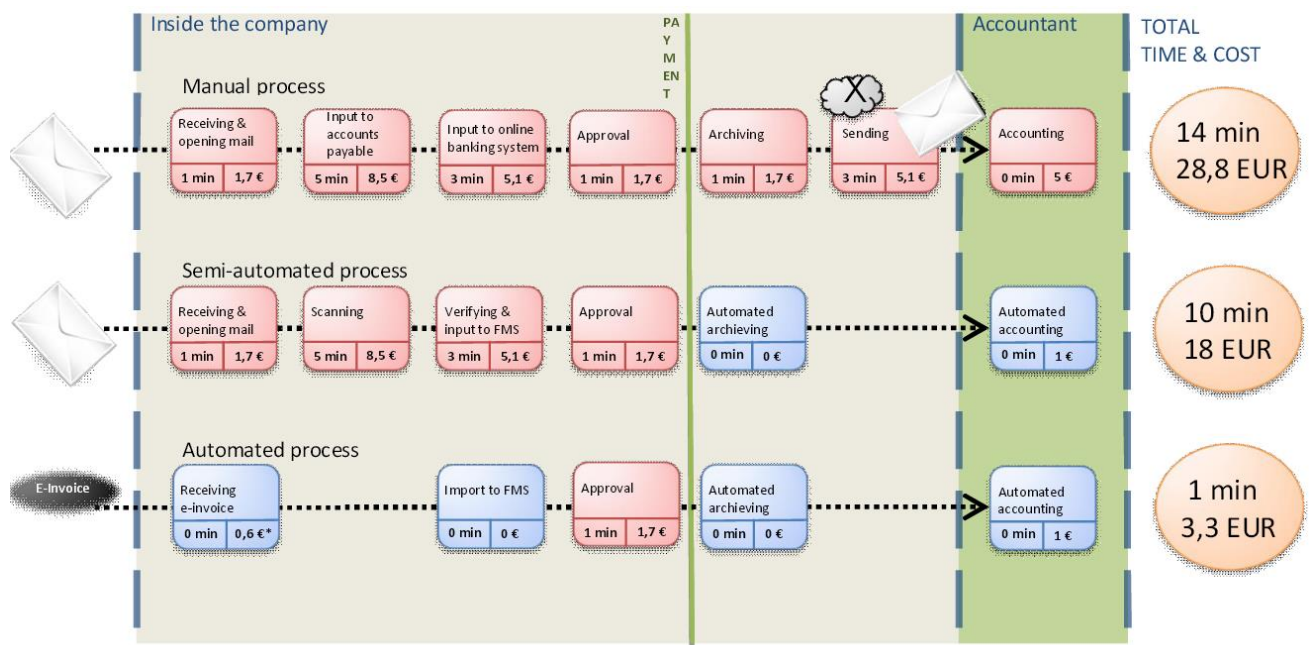


Figure 4. Typical manual, semi-automated and automated invoice processes. (Penttinen 2008.)

When sending invoice there is no significant difference in cost and time, yet any cost reduction is welcome in a company. The following picture illustrates the process of sending invoice and its respective savings in time and cost.

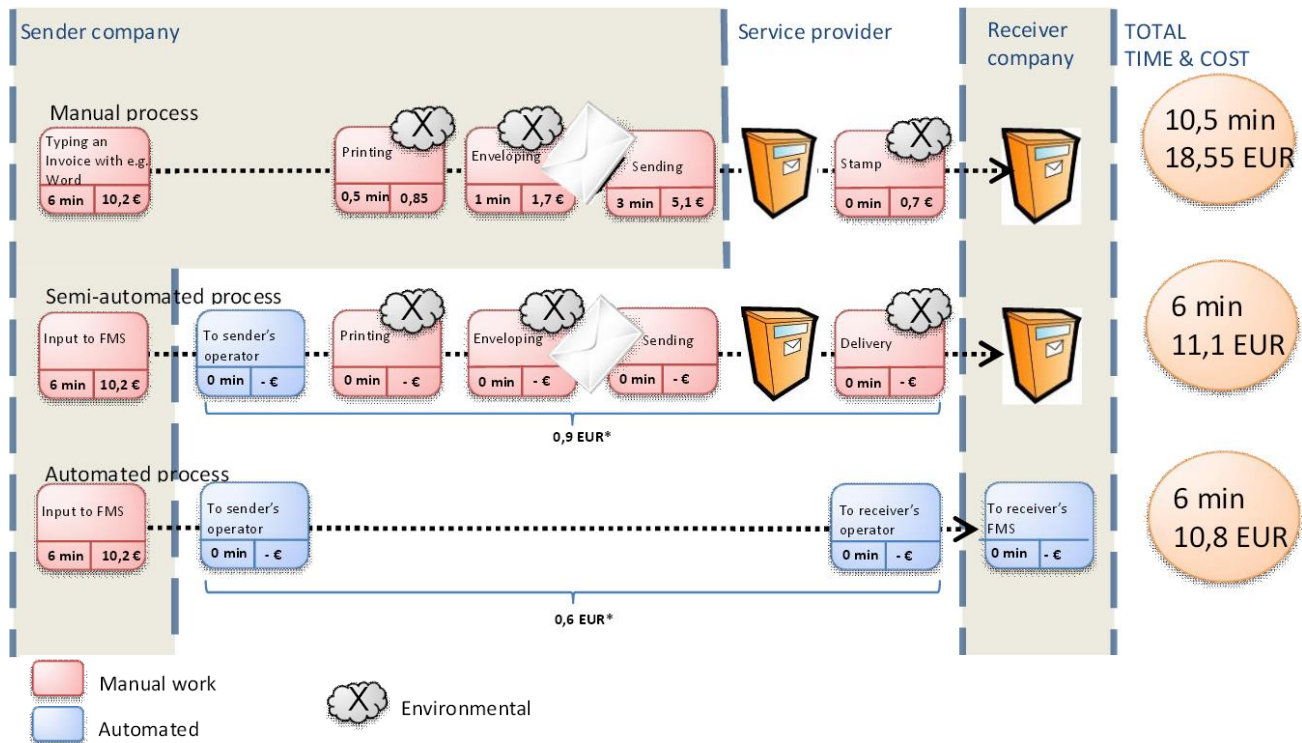


Figure 5. Sending invoice and its respective savings in time and cost. (Penttinen 2008.)

2.5 Why implement e-invoicing

The main reasons companies implement e-invoicing is to reduce the invoicing process costs. By means of e-invoicing, generally companies can cut down approximately 60% of costs with papers handling, printing, scanning and archiving time reduction.

Enhanced accounts receivable is another great reason to start e-invoicing. Papers usually take days to get to the destination and to be processed. By e-invoicing, suppliers can get quick access to invoice data and therefore faster payments occur.

Companies can decrease significant amounts of invoices rejected, have better cash flow, improve customer/supplier relationship and boost green credentials becoming a more attractive company in the market.

There is no minimum limit of invoices to be sent or received in order to start e-invoicing; any size of company can do it. It is necessary to choose the right network provider in order to get the maximum benefits for each business case.

2.6 Impacts of e-invoicing

Implementing e-invoice system can bring many positive impacts in a company. Some of the main impacts are in the organization structure, employees work and in trading partners.

According to Jari Viljasaari from OpusCapita, between three invoicing options; paper invoice, email invoice and e-invoice (i.e. "Verkkolasku"), the e-invoices are paid most promptly. While email invoices are paid least. This is due that emails get easily lost in inbox and are often forgotten, if not reacted while first opening the email first time.

Impact in the organization

Drop in environmental impact of business can be done due to the conversion of business documents into automated data, abolishing the need of paper and physical transportation. (Ciciriello & Hayworth 2009.)

As a result of automating invoice procedures, companies will dismiss the account receivables and accounts payables processes and repetitive tasks, and gain more time due to tasks that no longer need to be done, such as handling the post, stamping the invoices, manual insertion of invoice data into the systems, manual reconciliation, scanning and archiving. By doing that, companies will have more time to concentrate on their core business, enhancing internal process and optimizing communication between other departments. (Ciciriello & Hayworth 2009.)

Trading partners that already conduct their business electronically will prefer to trade with partners (suppliers/customers) that also have automated process, giving SMEs a huge competitive advantage against other players in the market. (Ciciriello & Hayworth 2009.)

Impact on employees

The workforce will gain more life quality, boost productivity and flexibility in reacting to market forces. These changes can be acknowledged by the automation of the invoices, that allowed more time to the focus on the main business and abolish manual errors, giving the company an opportunity to grow without having to hire more staff in the same proportion as the business grow. (Ciciriello & Hayworth 2009.)

Impact on trading partners

Sellers and buyers will take advantage from working with SMEs that has e-invoicing process. They enhance effectiveness, allowing flexible pricing models that change according to the profits achieved. Deductions are not unusual as an encouragement. (Ciciriello 2009.)

SMEs will be able to expand and enhance their partnership with business partners, all due to the implementation of e-invoicing procedures. All business partners across the whole supply chain will benefit (financial organizations, distributors, sellers, re-sellers, final consumer, etc.) permitting a cultural change within the company in the direction of a more cooperative model that involves cross functional team effort, engaging different departments such as (procurement, financial, administrative, logistics, etc.) (Ciciriello 2009.)

2.7 Challenges and legal compliance

Several Nordic companies already use automated archives. Regulations in Scandinavia enforce no limitations on e-invoicing. Post office is a supplier in Finland, the main source of e-invoicing. For this reason e-invoicing info shares the same privacy and safety as conventional mail. The EU-legislation supports e-invoicing and the accounting act in Nordic countries allows the use of automated archives. (Tieke 2016.)

The biggest concern of SMEs when implementing e-invoicing is that they would have to invest significant amount of money and time. Only where e-invoicing is an in-house development do users have to invest more to get advanced legal analyses. It is recommended to purchase packaged solutions from e-invoice providers. They usually know more about a country legal compliance and will be able to help companies starting this process. (Koch-Billentis 2015.)

According to Jari Viljasaari from OpusCapita, large companies with CRM and ERP up to date and working, can easily connect to any operator such as Basware or OpusCapita, or to bank network directly. Also players such as Basware and OpusCapita are willing to cooperate with these companies. The e-invoicing implementation still requires some cost that at times may not be affordable for SMEs.

3 Project design and methods

Most of the information used for these guidelines was obtained through desktop research. This research gathers together reliable information from trustful sources. A lot has been researched about e-invoicing, yet this research is designed to look SMEs from another angle; to identify what is missing for companies to go paperless. To get better understanding, below is research process diagram.

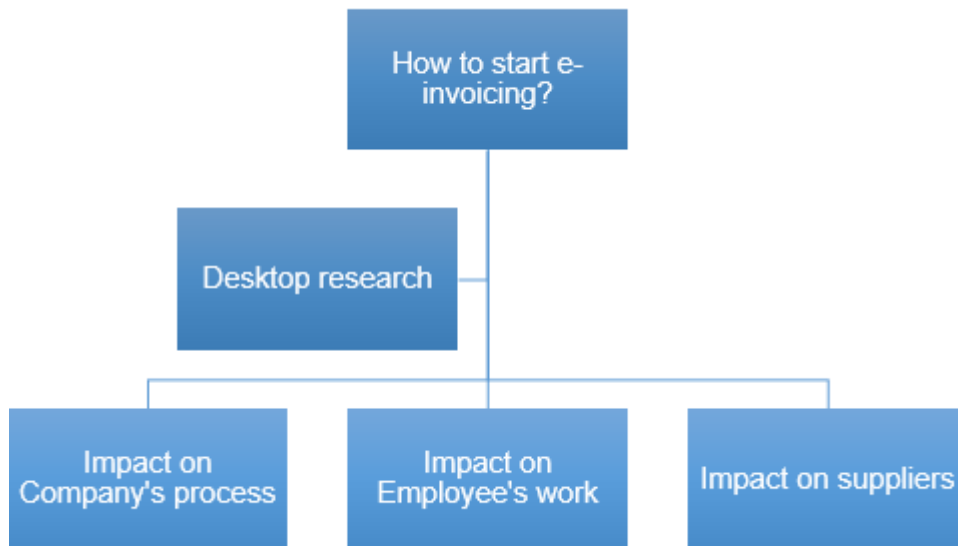


Figure 6. Research process diagram

The diagram explains the scope of research. From the top of diagram the main question is: How to start e-invoicing? Assuming this is a question taking place in many SMEs minds, research starts by giving a general knowledge of what is e-invoicing, how did it start in Finland, how does it work and what are the benefits of implementing it. After explaining it, the research presents the main impacts caused by e-invoicing: impacts on company's processes, on employee's work and on suppliers. After understanding that, author helps companies to analyse the right provider and model that would best fit their needs.

Furthermore the following chapters will present an action plan that will help companies with three different stages of invoicing implementation. The first stages is what to do before start e-invoicing , the second stage guide companies finding the best network provider while the third one approaches the supply chain and how to get them on board of the business case.

4 Before investing in e-invoicing

4.1 Map out your current process

After finished mapping your current state of e-invoicing process, you will have a better understanding of company's today's state. You will be more accurate when making requirements for your provider and will have more realistic expectations about your project. According to (West 2013) this first step can take three to six months.

If current invoicing process is not familiar, you will not be able to identify the need for e-invoicing. It is important to know key figures of your invoicing process to identify the real costs of having it this way. In other words, if you do not know the problem, you will not know how to solve it. (West 2013.)

The picture below demonstrates a sequence of questions needed to ask yourself in order to map your e-invoicing needs.

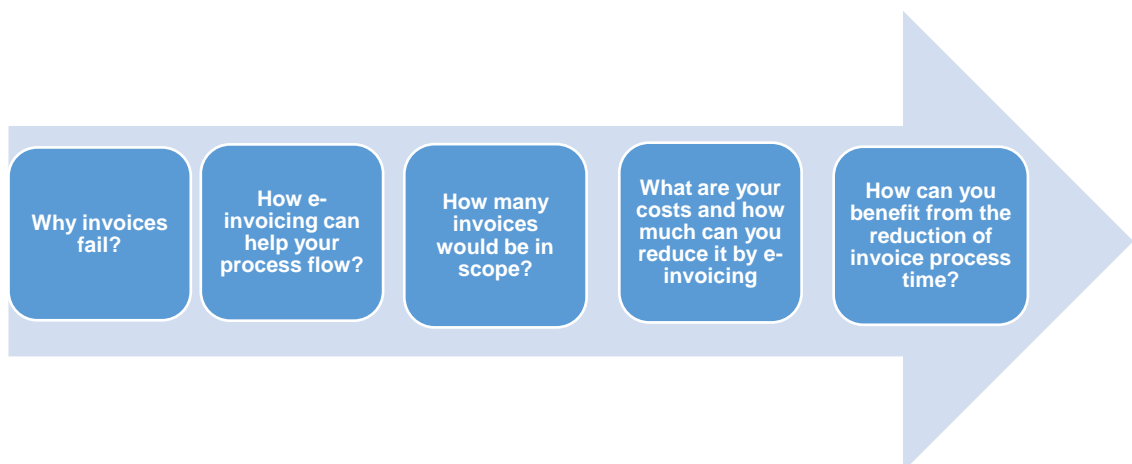


Figure 7. Mapping your invoice process. (West 2013.)

By following this sequence of questions you will be to put together a better business case.

The benefits of investing to e-invoicing can be measured in savings in *time*, *effort* and *money*. Time and effort savings are reached in invoice process: scanning, capturing and entering data, as well as in invoice to purchase order matching and archiving. Researches show that investment can reduce administrative costs up to 40-60 %. (Koch-Billentis 2015.)

4.2 Vision – Company long term goal

In order to kick off the change process from old way of invoicing to a new one, you need to sell your ideas and benefits it brings, to company stakeholders. (Koch-Billentis 2015.)

Therefore company needs a short-term vision, where they want to stand in six months, one year or two years' time. Does investment in e-invoicing match the vision? If stakeholders' ambition is to simplify processes and boost productivity, then they should invest. (Koch-Billentis 2015.)

Below chart shows what is needed in order to sell the idea of investing to stakeholders.

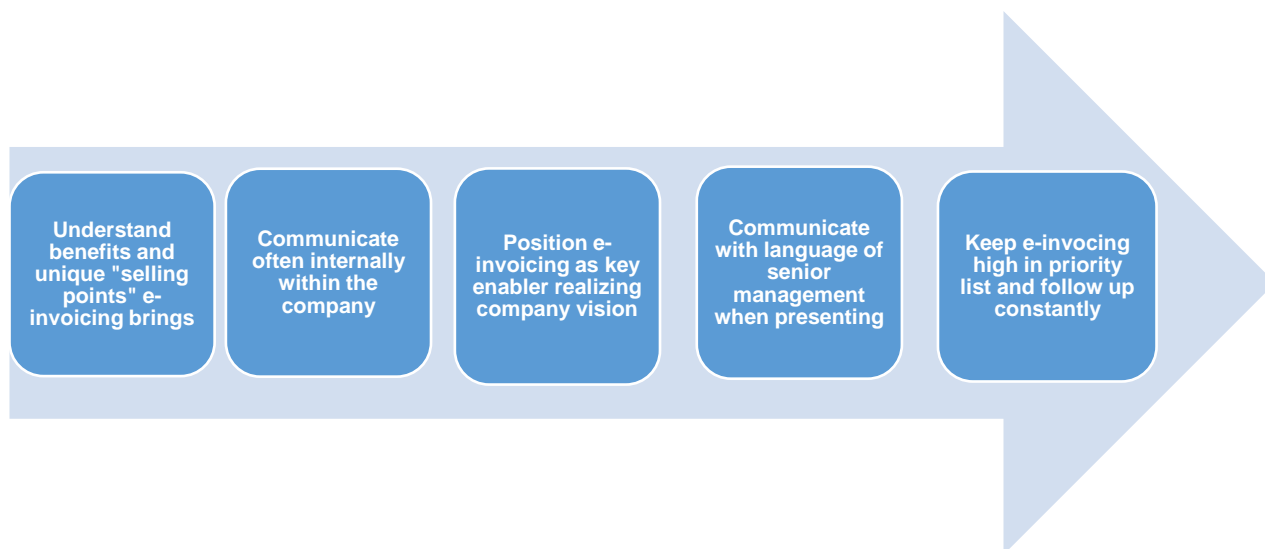


Figure 8. How to sell benefits of e-invoicing investment internally within a company. (Koch-Billentis 2015.)

4.3 Involve procurement team early in the process

Common setup in companies is to have separate finance- and procurement teams. They have different ways of measuring their work, different objectives and different reporting structure. They might not even sit in the same office. Finance team is often first to own the project of implementing an e-invoice, since they are benefiting more from it. (West Susie, 2013)

Yet, e-invoicing is very supplier-focused tool, and suppliers are owned by procurement team. Finance, or AP, is there to pay the invoices. Therefore project should be a joint effort between the two teams. If finance is leading the project, they should always involve procurement in very early stage of the project. This gives a great start to a successful implementation project of e-invoicing. (West 2013.)

4.4 Solutions

When decision of investment is done, and it is time to start the project implementation, please consider following questions:

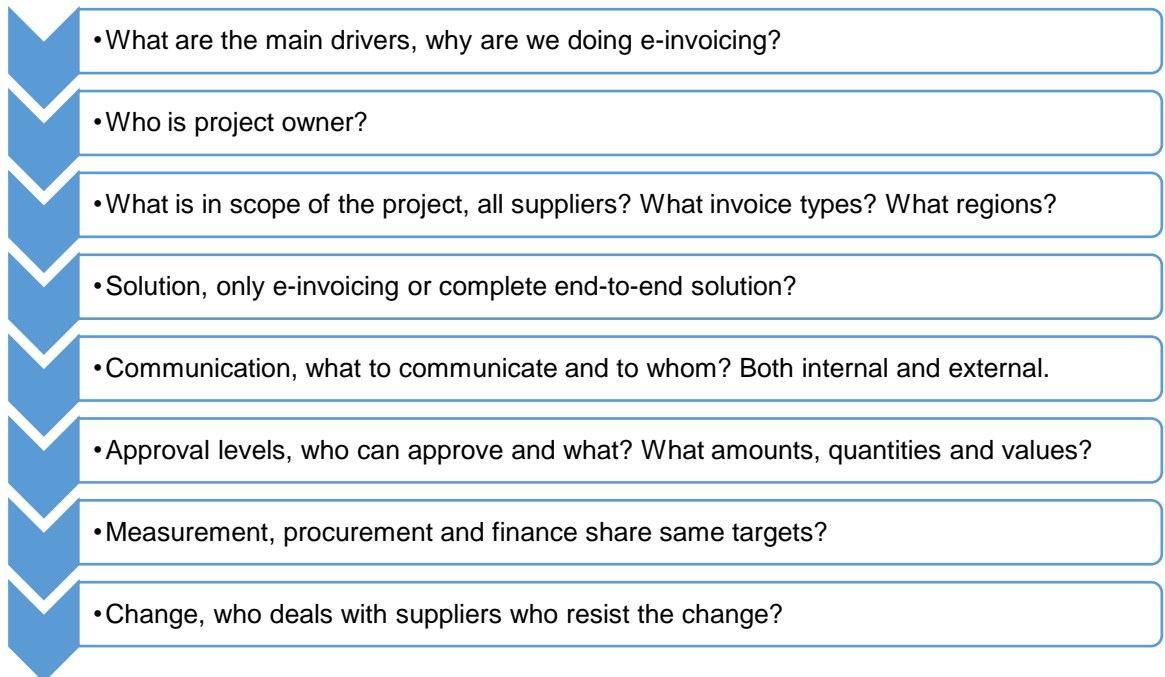


Figure 9. project implementation. (West 2013.)

How to choose best fitting solution? First consider following questions.

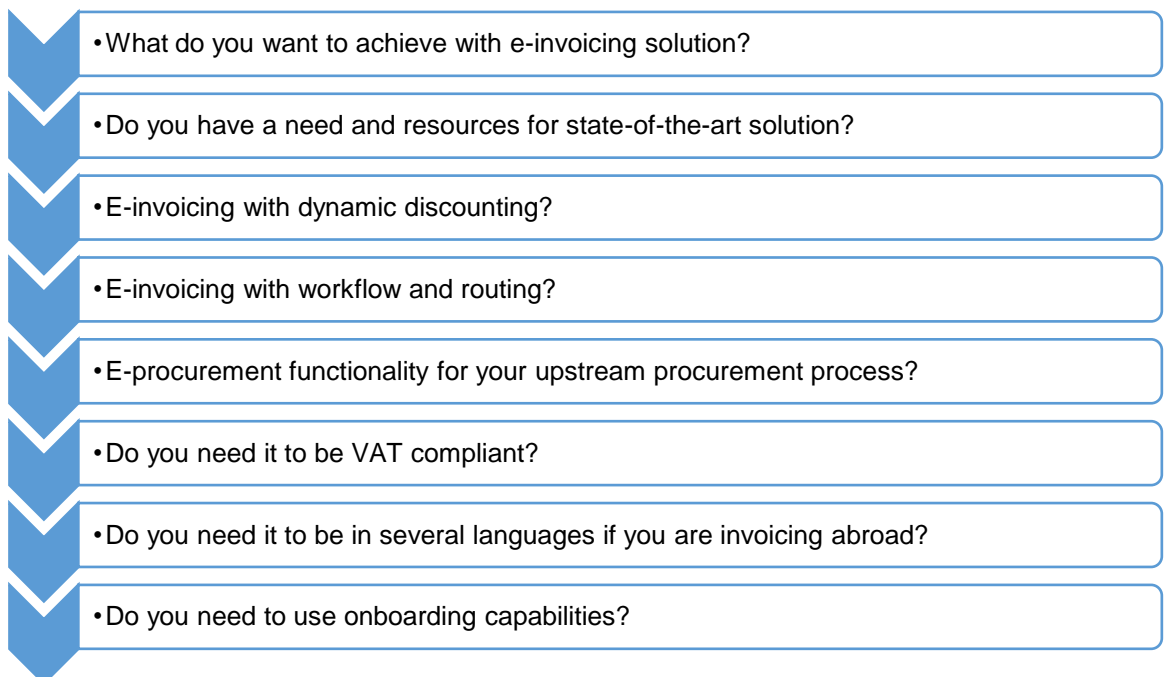


Figure 10. choosing the right solution. (West 2013.)

When it is getting internally clear what is wanted and needed, it is time to put at least following requirements into a document in order to send out RFP to the suppliers. (Koch-Billentis 2015.)

- Commercial and business requirements
- Process requirements
- Scope requirements
- IT requirements
- Schedule and timing

It is easy to receive big variety of solutions proposals from suppliers. With these requirements carefully documented, you can be sure that incoming quotes are similar with each other. You avoid risk of comparing apples to oranges.

4.5 Calculate how much you lose for not implementing

At this step, it is already carefully evaluated what are the benefits of implementing the new system. Therefore cost of each day staying in the old system, should be calculated. With clear number of cost growing each day, puts a certain pressure and speed for the project stakeholder team to implement the new system. (Koch-Billentis 2015.)

4.6 Benefits e-invoice can bring to your business

Client is provided with economies of scale when dealing with a huge amount of invoices automatically and they usually achieve more benefits from e-invoicing than sellers. (E-invoice Basics 2016.)

Benefits of e-invoicing		
For buyers	For suppliers	For Managers
Reduced costs	Faster payments	Improved visibility
Increased accuracy	Reduced costs	Optimised working capital
Increased AP productivity	Fewer rejected invoices	Improved compliance
Faster processing and payment cycles	Increased productivity	Improved customer relationships
Focus on higher value activities	Enhanced accounts reconciliation	Enhanced system optimisation
Enhanced accounts reconciliation	Improved customer relationship	Meeting green initiatives
Improved cash management	Improved cash management	
Reduced fraud and duplicates	Alternative finance options	
Reduced payment fees		
Improved dispute handling		
Improved supplier relationships		
Optimised community management		

Figure 11. Benefits of e-invoicing. (E-Invoicing Basics 2016.)

Some of the benefits explained:

Reduction of costs: by means of e-invoicing companies can save up to 40 and 60%, with possible return of investment of as low as six to eight months. This is possible due to the abolition of categorization, recording and manual info entry of paper invoices. (E-invoice Basics 2016.)

According to (Flynn 2016), costs related to deliveries can be lowered as much as 80%. This is due to savings in port processing system, material reduction and less need of storage. In addition to that, even more benefits will be gained through fewer requests of printing lost invoices and customer calls.

Increase in accuracy and rejected invoices: reduces the possibilities of human error, when entering invoice data manually in the system. (E-invoice Basics 2016.)

Solving rejected and non-matching invoices can be time-consuming work. Solution removes need of manual checks of the data. That reduces risk of wrong data entry. (Flynn 2016.)

Increase accounts payables efficiency: reduces the number of seller calls to ask about invoices overdue, due to the automation of invoices the reduction of time processing the invoice is smaller and more accurate. (E-invoice Basics 2016.)

Reduces processing time and payment cycles: with automation of invoicing process, companies can have on-time payment, avoiding overdue bills as well as the interest in-voices and fees due to late payments. (E-invoice Basics 2016.)

E-invoicing process eliminates various steps from traditional way of processing. Your partners get access to all data related to invoice in fast and efficient manner. Finally, the measurement of DSO will be decreased. (Flynn 2016.)

Concentration on higher value activities: the automation of invoicing process enables company to focus on core business, rather than spending time with low value activities. Employees can concentrate their time to high value tasks such as auditing, authentication and payment deductions. (E-invoice Basics 2016.)

More trade discounts opportunities: by paying the invoices on time companies can benefit from early payment discounts. Usually, buyers and sellers have agreements regarding this matter. There are many models of on-time payments to benefit different kinds of suppliers. (E-invoice Basics 2016.)

Improving account reconciliation: in order to reduce bank fee, companies often do payment reconciliation, and it is always a challenge for companies to conciliate the payments with the bills received. Many times clients may claim discounts due to late shipment or damaged goods. Due to these facts, suppliers usually call clients to ask details about the trade. By automating the invoicing it is easier to do the accounts payables reconciliations. (E-invoice Basics 2016.)

Other benefits of e-invoicing include enhancing disputes handling and avoidance, maximizing benefits and improved relationships with trade partners.

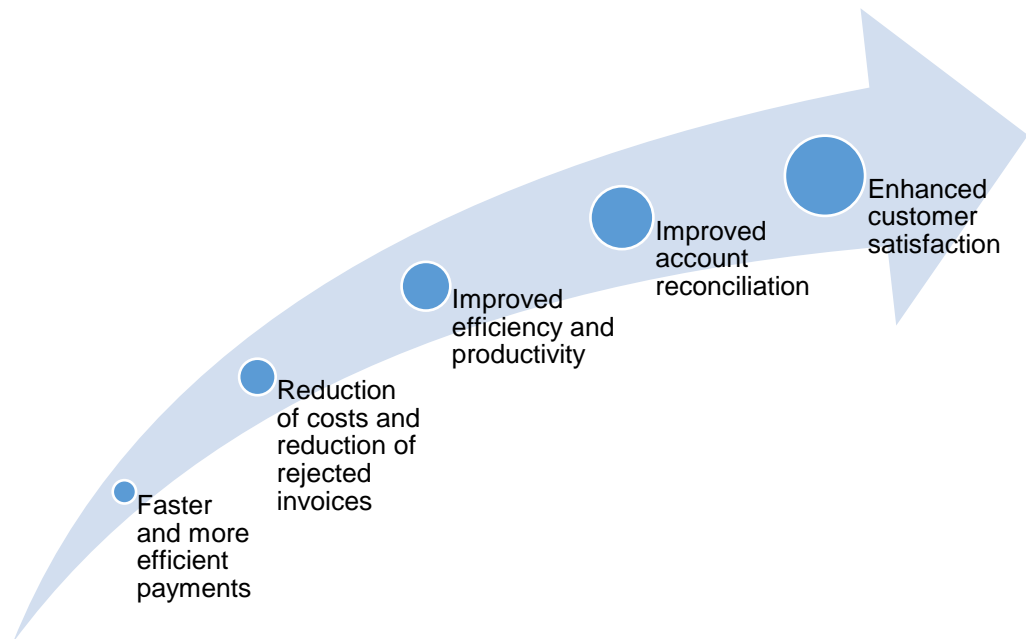


Figure 12. E-invoice benefits for suppliers. (Flynn 2016.)

4.7 Cost of implementation e-invoice system

Costs of implementing e-invoice system varies from company to company depending on the amount of invoice each company receives and invoices, as well as what e-invoice provider they use and which model they choose. This service is offered by automated invoice operators as well as banks. As results of a study conducted by the Federation of Finnish Enterprises, the differences between prices are over tenfold from the cheapest service provider to the most expensive, it will depend on the size of the company and the flow of invoice been sent and received. This study points Maventa (Finnish e-invoice operator) as one of the cheapest provider even taking in consideration banks. (Lemmelä 2016.)

It is not possible to say one company will have the same price as another because it depends on the amount of invoice a company receives and invoice. According to the research conducted by (Lemmelä 2016), in two companies with different flows of invoices result in two different prices ranges. A company with flow of ten thousand bills monthly and another that had under a hundred invoices monthly, the company with low flow of invoices sent and received the costs varied from 4.40 € to 356 €. Whereas, the company with high flow of invoices had costs variation from 505 € to 5676 € per month.

If considering only the services offered by banks, the most affordable service for companies with big invoice volume are the services offered by Aktia and Handelsbanken along with Nordea's e-invoicing service used through bank connection software. For the lower

volume of bills, the cheapest option of bank would be OP-Pohjola and Suupohjan Osuuspankki, and Sampo's internet banking portal. (Lemmelä 2016.)

The costs to be paid for services provided by banks for the company with higher volume of invoices were from 1554 to 4860 €, while the company with less flow of invoice had costs from 21 € to 49 € per month. (Lemmelä 2016.)

Notice that the banks can offer a much cheaper option of billing automation for big and small companies, yet they do not provide the same service and facilities as the e-invoicing providers. When choosing an e-invoice operator it is important to analyze what is the best fit for the company. Banks can be a great fit for small companies, yet may not offer all service facilities a medium enterprise need. Services and needs have to be analyzed hand by hand when choosing a provider that best fits the company.

5 Choosing the e-invoice provider

5.1 Commerce network vs e-invoice provider

Commerce network can be considered as a larger ecosystem between connected companies; suppliers, partners and buyers using different e-invoice providers. They are using all benefits of financial solutions and services of big, collective business network. If decision is done not to join the network, solutions are mainly limited to sending e-invoices. (Koch-Billentis 2015.)

When joining the large network, you open your business up to completely new opportunities. One example of this is dynamic discounting solutions as well as other financial services.

5.2 Evaluate the features of networks you are considering

There are a variety of models to be taken into consideration that may influence the cost of implementing e-invoicing. Usually service providers offer a variety of activation fees, monthly fees and transaction fees while banks can charge only or two of these fees. (Lemmelä 2016.)

When considering between suppliers, and what features to include, e-invoicing can be considered same way as conventional post carriers. They also have different positioning in the market as well as different pricing models. This varies depending of geographical reach, interoperability with other systems, compliance with local rules and regulations, and many other variables (Koch-Billentis 2015). One variable, that can be taken out, when comparing to conventional carriers, is speed of delivery.

In order to properly map your e-invoicing requirements it is important to analyze the cost and the fee per invoice. This can be a defining factor for higher invoices volume. For lower invoice volume it is important to think of the activation fees. If the activation fee is too high, a bank provider can be enough. Service providers has proven to be more cost efficient for companies with higher volume of invoices, but could be expensive for companies with lower volume of invoices. (Lemmelä 2016.)

5.3 Open vs closed networks

There are networks which operate on closed model. This can limit the possibilities when customers consider adopting e-invoicing system. These networks do not communicate

with each other. This can end up in a situation where you have to use several of them in order to reach every trading customer or supplier.

Large and open network makes e-invoicing process more simple and straightforward. If open network with several operators are connected in controlled environment, all suppliers, partners and buyers can reach full benefits of the system (Koch-Billentis 2015). These need to be evaluated in SMEs, since benefits usually are greater for larger and global enterprises.

5.4 Evaluating the network provider

- 1) Where are your suppliers and customer located?

Some networks have limited geographical reach. Network needs to be chosen so that it fits the business' requirements.

- 2) What is your suppliers and customers current capability to do e-invoicing?

Several small and medium businesses wishes to implement "true" e-invoicing with all the features included. Yet typically they do not have sufficient technological or financial capability required. These cases you may offer alternative solutions: for example a portal to upload invoices, offer to scan themselves and send via email, or keep sending traditional way by paper. This case your solution needs to have possibility to scan and save invoice electronically.

Below list of questions, which help to consider if available features are worth investing? (Koch-Billentis 2015.)

- **Is it open or closed network?**

If you have many different suppliers and partners, open network connects them better and integrates with your system. Closed system might leave your supplier out of the process completely.

- **How large is the network, how many companies are inside it, is number of companies in it growing?**

When networks growth rate is faster, the better it is for your company. Investments in the systems show that there is long term plan in place and you can be more confident about the value it will bring to all companies connected to the network.

- **How is the connectivity with other networks?**

Check if supplier have open or closed network in place.

- **How many openly connected supplier partners they have?**

Suppliers might sell themselves with open network system. It needs to be checked out also how open they are; some have lot of partners, some less. For SMEs, this might not be as important, as it is for large enterprises.

- **How many of your business partners are already in the network?**

This can be checked out by contacting network providers and advise them of your customers and suppliers list, if possible. Remember that implementation rate of e-invoicing is growing fast; your partners might also consider.

- **Will the system expand together with your business?**

Suppliers will offer a variety of solution options. SMEs usually can get started with basic features offered. Consider the expandability of system while your business grows. Check that system has enough geographic coverage in case you expand abroad. Also check the possibility to add features later on, such as e-ordering or e-procurement

- **How much do features cost?**

Cost of system or feature depends on the requirements. Typical setting is that there is a setup cost with additional cost per a transaction. Small companies might get the setup for free, since it is possible that they only need to sign up to supplier online system and start receiving and sending invoices there.

- **Partners to include in the system?**

You might have several suppliers, with big variety of invoicing processes between them. While you implement your system, it needs to be taken care that maximum amount of your supplier can adopt it.

For very low invoices volume suppliers, it is not worth implementing the system. For strategic suppliers, who are important for your business, yet cannot adapt to your system, customized e-invoice process needs to be considered.

Success of system implementation will lie in having biggest amount of suppliers in the middle, adopting standard e-invoicing. There you will use a standard straight-forward process with your suppliers, without compromises. When having most of suppliers there, you will enjoy most benefits e-invoicing processes bring. Additionally, further right, in the below chart, standard e-invoice process can be dragged, the greater are business benefits. (Loughlin 2013.)

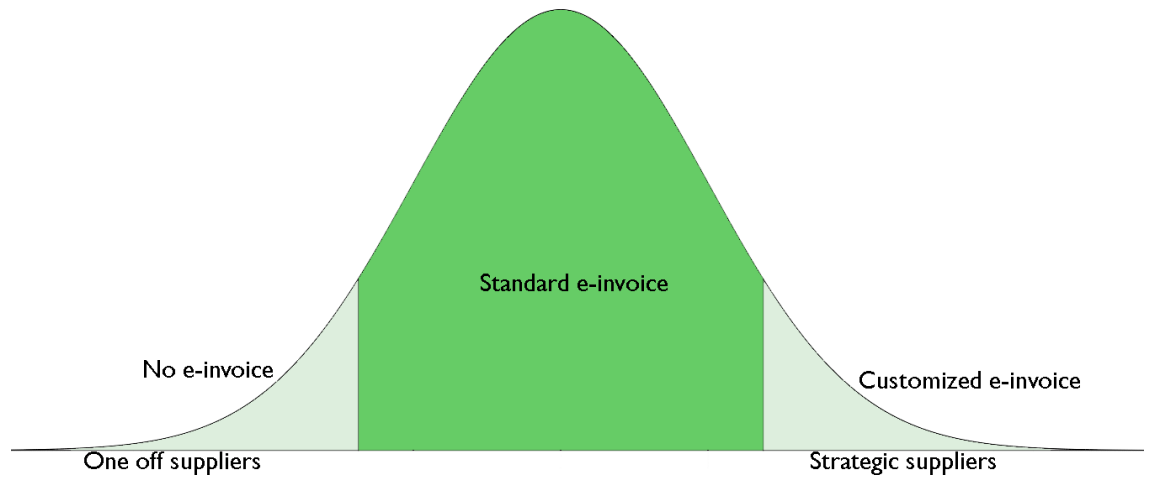


Figure 13. One off suppliers vs strategic suppliers. (Loughlin Pete, 2013)

6 Engaging your supply chain

Advantages of implementing e-invoices are unquestionable (Koch-Billentis 2016): companies gain savings in forms of money and time. Yet the complete solution will not work, if you cannot get a good argumentation in place, in order to get your partner suppliers to join your network.

6.1 Approaching customers

Selling the idea of changing your trading partners and customers processes will be a challenge. Therefore you need to pick up a solution that makes your suppliers' life easy and the implementation process as fast and straightforward as possible. The higher quantities of partners send you e-invoices, the faster your return of investment.

There are various companies to do business with. They all have their own type of requirements. This depends on size, market and industry, as well as the maturity of their current processes. This leads to a challenge for the e-invoicing solution providers. It is not possible to do a solution that fits for all of the needs and requirements. At the end, it is up to the customer and supplier to decide whether to implement. Generally, the higher quantity of invoices, the higher need for the solution. For small companies, key is to offer free or low-priced solution. This could be sending pdf –files via email or access to a portal.

6.2 Value proposition towards your suppliers

It is important to think of the needs of the trading partner opposite of the table. Below list of main value propositions that can be used when entering into discussion with trading partner. (Koch-Billentis 2015.)

- Improved transparency
- Invoices saved in cloud and can be easily accessed any time
- Status of payment process
- Less questions about invoices
- Enhanced cash flow and better liquidity
- Improved balance sheet

7 Conclusion

The results of this thesis are guidelines that will help SMEs implement e-invoicing system. The thesis focus on the actions needed to be taken in order to implement e-invoicing system rather than the barriers and challenges, giving SMEs more security and support to start.

It is stated in this report that e-invoicing is not something new in Finland and has been implemented in most of large companies. Nevertheless, it continues to be a challenge for SMEs in Finland. As SMEs are creating the majority of business in Finland, author thought it was important to target this group.

The guidelines aims to help SMEs understand the benefits of implementing e-invoicing and how to get the most out of it by breaking the idea that e-invoicing is something that only large companies with big financial resources can have. In fact, more and more e-invoicing systems become a way of billing that can be affordable for any company.

The research shows that there are many network providers and many different e-invoicing models. The best way to extract an e-invoicing solution is to be prepared before contacting the network providers, choose the right network provider that suits your needs and requirements, and after that get the supply chain on board. In order to do this, the guidelines present an action plan divided in three stages. These stages will help SMEs to think of e-invoicing more like an investment rather than an expense.

To sum up the results of this research the author strongly believes that by following these guidelines SMEs can easily start implement e-invoicing system and save lots of time and money. Also companies will be able to focus on the core business and invoicing process will be smoother.

As for the authors learning there is a lot to be taken into consideration such as knowledge of international business subject, e-invoices methods, legal compliances, analysing different perspectives, leading a research and much more. For what is worth to tell the author strongly believes that this research can help SMEs going paperless.

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Appendices

Appendix 1. Questionnaire sent to e-invoicing providers

Implementing e-invoicing in SMEs in Finland

1. How big is the target group of SMEs in Finland that has NOT yet implemented e-invoicing? Would you have any statistics on that? Any figures?
2. Why to implement e-invoice?
3. What is the “x” number of bills a company should invoice to have the need of implementing e-invoicing?
4. Where to start?
5. Who to contact? Who are the main providers of electronic invoicing in Finland?
6. What are the legal requirements in Finland for implementing electronic invoice?
7. What the Accounting act says about electronic Invoicing in Finland?
8. What are the real costs of implementing it? How much companies need to invest?
9. Are there different models of e-invoicing? What would be the best for SMEs in Finland?
10. What are the benefits for the company?
11. What are the benefits for the employees?
12. What are the benefits for the customers?
13. What are the benefits for suppliers?
14. What has stopped SMEs from implementing it before?
15. How implementing e-invoicing impacts the invoice process in a company?
16. Once the company has implemented e-invoice, what to do with the suppliers?
17. Do the suppliers need something (similar knowledge) to interact with a company that is e-invoicing?
18. Is the company going to lose their suppliers if they cannot e-invoice?
19. Are there any risks or disadvantages when implementing e-invoicing?
20. Should companies be concerned about the safety, confidentiality and reliability of information when e-invoicing?
21. If e-invoicing has proven to save money and time for companies, and have been around for more than 30 years, what is missing for all the remained companies go paperless in Finland?

Appendix 2. List of well-known e-invoice providers in Finland

Apix Messaging Oy

Sinikalliontie 9
02630 Espoo

Basware Oyj

Linnoitustie 2, Cello-rakennus
02601 Espoo

CGI

Karvaamokuja 2
00380 Helsinki

Enfo

Bertel Jungin aukio 7
02600 Espoo

OpusCapita Group Oy

Keilaranta 13
FI-02150 ESPOO, FINLAND

Pagero Oy

Metsänneidonkuja 12
FI-02130 Espoo

Posti Group Oyj / Verkkolasku

Postintaival 7
00230 Helsinki

Strålfors Oy

Toinen savu 4
01510 Vantaa

Tieto Oyj

Aku Korhosen tie 2-6)
00441 HELSINKI

Visma (Maventa ja verkkolaskut.fi)

Visma-talo, Elielinaukio 5
00100 Helsinki

Yap Solutions Oy

Äyritie 8
01510 Vantaa

Zervant

Tekniikantie 12
02150 Espoo